

# WONDERS of the SOUTHWEST

By N. H. DARTON, U.S. Geological Survey

THE southwestern section of the United States is a province that presents many special characteristics of physiography, climate, resources and capabilities which are not as well known as they deserve to be. The term "southwest" is usually applied to New Mexico, Arizona and southern California, an area of about the size of New England, New York, Pennsylvania, Maryland and the Virginias. Much public attention has of late been attracted to Arizona and New Mexico in connection with their admission to statehood, and one gratifying result of this has been a greatly increased interest in their resources and conditions.

Excluding the populous and thrifty coast region of southern California, the southwest is the most thinly populated and least developed portion of the country south of Alaska. As this condition is due mainly to a climate so arid that but little can be raised without irrigation, its future development is to be measured by the utilization of the vast volume of flood waters now going to waste. This water can be applied to millions of acres of level lands with rich soil, which with the unending sunshine of its mild climate will respond with large and profitable crops.

Unfortunately, there is not enough water for all the land, but there is sufficient, if all were utilized, to support a population many times as large as the present one. The government is now spending \$12,000,000 in reclamation projects in Arizona and New Mexico which supply water for nearly one-half million acres of fertile lands. This will give great impetus to development, and in time, when settlers take up the reclaimed land, there will be a large increase in its agricultural productions.

In the great coast region of southern California, with a population of nearly 6,000,000, the principal product is the orange and other fruits, with a value of about \$20,000,000 a year, while in the inland districts the mining industry is the largest source of revenue. Portions of the southwest are richly productive of various minerals, notably those of copper, and recently southern California has become a heavy producer of petroleum. The value of the copper, oil and other products of the ground aggregates about \$75,000,000 a year.

It is probable that further exploration will disclose large additional supplies of ores of various kinds, especially those of low grade, which will prove profitable under improved methods of reduction.

The southwest presents a variety of topographic features, and many of its economic resources are closely related to them. There is great range in altitude, with corresponding variation in climatic conditions. One of the most salient features is the wide, high plateau of northern Arizona, which reaches an altitude of 8,000 feet. It is surrounded by various volcanic peaks, notably San Francisco peak, which is 12,511 feet above sea level.

To the east this district merges into an irregular series of high plateaus, constituting the western half of New Mexico. To the west and south it drops by huge steps into the great region of desert valleys or basins of Nevada, western Arizona, and southeastern California. These deserts are wide, long plains, lying between mountain ridges of varying lengths and heights, ridges which are all very rocky and mostly treeless and trend north and south.

Diagonally across southern California there extends the long, curving ridge of the Sierra Madre, and San Bernardino mountains, between which and the ocean lies the large oval area known as the valley of southern California. This valley is the great citrus fruit district, and Los Angeles.

There are two great rivers in the southwest, the Colorado and the Rio Grande. The Colorado river has been compared to the Nile and the similarity is notable. Both are streams of the first rank, rising in high mountains, and finally crossing a broad region of semi-tropical, nearly rainless deserts. Both empty into seas in nearly the same latitude, and their lower courses are through wide deltas of fertile soil. The annual overflows add new sediments fertile with plant food and at a time favorable for the crops.

The agricultural capabilities are closely similar, but while much of the lower Nile valley is utilized the Colorado valley is just beginning to be settled. The watershed area of the Colorado, with its two head branches, the Green and the Grand, is over 200,000 square miles, its course 2,000 miles in length, and its annual discharge is 11,000,000 acre-feet, or enough to cover that number of acres one foot deep.

The sediment which it carries each year into the Gulf is estimated to be sufficient to cover 53 square miles one foot deep. For 200 miles of its course across the high plateau of northeastern Arizona it cuts the wonderful Grand canyon, which in places is nearly a mile deep. South of the canyon it flows mostly in broad valleys, but cuts through several des-

NAVAJO CHURCH, A PRODUCT OF EROSION



POEBLO OF ZUNI, WESTERN NEW MEXICO

about 4,000 feet wide and 600 deep, with an irregular enclosing rim of loose rock fragments from 120 to 160 feet high.

The petrified forests attract many visitors, especially the most accessible one south of Adamana, a station on the Santa Fe railroad a few miles east of Holbrook. There is a large quantity of the material in sight here, some of it in large logs. One of these logs spans a small draw as a natural bridge.

Arizona possesses a very picturesque natural bridge of limestone spanning Pine creek, in Gila county,

permanent and mostly very ancient, and their religious ceremonies are extremely elaborate and picturesque. They live in villages of several hundred inhabitants, in substantial stone or adobe houses, some of which are in groups, rising in tiers to a height of four or five stories, with streets and central plaza. They are peaceful and industrious, raising crops largely by irrigation. They have herds of cattle and sheep, and spinning, weaving and making their garments is one of their important occupations.

Work appears evenly divided between men and women in the pueblos. The men do the farming, tend the cattle and sheep, do the hunting, build the houses, and have many smaller trades and occupations. The women do the housework, grind the corn, make pottery, blankets and clothes.

The visitor is generally impressed by the pueblo people and pleased with the agreeable home life and simple hospitality which they readily offer.

The interesting features of the southwest, notably the beauty of the coast region and the special climatic advantages, draw a large number of tourists and health-seekers, especially in winter, and every year sees a substantial increase in the influx of visitors.

Because of its dry air and mild climate the southwest has become famous as a health resort, especially for those having tuberculosis of the respiratory organs. The percentage of cures made in New Mexico, Arizona and California, great as it is, would be much greater if a larger proportion of those who are seeking health came in time. It is necessary to come before the vitality is too greatly diminished and then to live under favorable conditions, the most essential of which is to be out of doors as much as possible.

Many health-seekers spend most of their money in railroad fare to reach the desired resorts. Physicians do a great wrong to patients in sending them so far from home, friends and care without means to provide suitable quarters, nourishment and attention to sustain them while making their fight against death.

The climate of the southwest presents considerable variety, but in all the lower lands the winters are delightfully mild, and everywhere blue sky is in evidence for more than 300 days in the year. The summers are warm; in the southern desert area they are decidedly hot for several months, but the dry air even then is much more endurable than the sultry summer weather of the eastern and central states. Sunstroke is unknown, and laborers continue their work without distress.

The valley of southern California is protected from the cold northern winds of winter by high mountain ranges, while to the south it is open to the Pacific. Owing to the peculiar configuration of the coast the cold California current from the north is deflected west near Point Conception, and hence the southern California shores have waters warmer by about ten degrees than those to the north.

This beneficent climate is responsible for the giant industry of fruit growing which has made California famous over the globe. California furnishes the major part of the very large amount of oranges and other citrus fruits consumed in the United States, and this business has been the potent cause in the development of southern California.

The orange and other citrus fruits of southern California have an output of about 30,000 carloads a year, with a net value of more than \$15,000,000.

East of the mountains in southern California is an extensive desert country, much of it without water, but large areas can be reached by ditches from the Colorado river. The most notable district of the sort is in the Salton desert, near the Mexican boundary. A few years ago this was a lonely and forbidding region, but now, by aid of irrigation from the Colorado river, it has several thriving settlements, with 100,000 people and 200,000 acres of cultivated land. That portion of it known as Imperial valley has the greatest development, and with rich soil and semi-tropical climate phenomenal results have been obtained when water is applied.

One of the best known products of this region is the cantaloupe, of which the annual shipments are over 1,800 cars, bringing nearly a million dollars. This valley contains over 400,000 acres of land, and just across the Mexican line are 200,000 more.

The great oil fields of California are in the southern part of the state, and with rapidly increasing production they promise to be the largest producers in the country.

for to the foreign agent, Wu Ting-fang alternates submergence and emergence with a frequency and regularity that is fascinating to behold. Now you see him at Washington, and now you don't. Now he is in the closet with the closest advisers of the emperor and now he is in disfavor. He has as many official lives as a cat, thanks to a longevity born of a good constitution and the practice of vegetarianism, and to the fine habit he has of not knowing when he is down and out.—Boston Herald.

## WU AT THE TOP AGAIN.

The wheel of fate has turned another full circle, and Wu Ting-fang comes to top again in China's politics, having just been appointed a councilor, therefore, make their choice. Others of lesser means would have had to content themselves with an officer, cavalry or infantry, according to the "dot," or a lawyer, or a doctor, or a merchant, and so on down the scale.—From Miss Wylie's "My German Year."

The men in Germany do not marry—they are married; they are more or less passive articles of sale, which stand in rows in the matrimonial shop-window with their price labeled in large letters in their buttonhole, waiting patiently for a purchaser. They are perfectly willing, even eager, victims; they want to be bought, but their position does not allow them to grasp the initiative, and they are

thankful when at last some one comes along and declares herself capable and willing to pay the price. The girl and her mother, with their purse in hand, pass the articles in review, and choose out the one which best suits their means and fancy. "I shall marry an officer," one girl told me some time ago, with the easy confidence of a person about to order a new dress; and lo! and behold, be-

## HAS HURT COUNTRY

BAD EFFECT OF ROOSEVELT'S WESTERN SPEECHES.

Fact That the President Seems Satisfied to Regard Himself as a Proxy Has Disturbed Credit and Confidence.

Mr. Roosevelt apparently wants another panic; but does Mr. Taft want one? This is a question that the president will soon have to answer.

Mr. Roosevelt's western speeches have been more dangerous to credit and confidence than to the constitution. Even his attacks upon the Supreme court cannot weaken the legal powers of that great tribunal.

But credit and confidence have already begun to suffer. The Roosevelt speeches have sent a shiver of apprehension through the world of commerce and industry, not merely because the former president is preaching Socialism, Populism and demagoguery, but because of the general opinion that he is again a candidate for president and that Mr. Taft is contented with the role of proxy.

If Mr. Taft had made it plain that he regarded himself as president of the United States in his own right, that he was no mere stopgap for anybody, there would be little cause for anxiety, no matter what Mr. Roosevelt might say or do. But Mr. Taft has encouraged the belief that he looked upon himself as a proxy and that he considered Mr. Roosevelt his political superior.

The meekness and humility that the president has shown since the Rough Rider's return have deepened this impression. The fear that he has displayed of wounding the Roosevelt vanity or of crossing the Roosevelt will is properly construed as evidence of abdication. Nowhere is there a strong popular belief that the president would fight to save his prestige or that he would resent any political insult that Mr. Roosevelt might offer to him. Indeed, the common opinion is that if Mr. Roosevelt decides to take the Brown from Mr. Taft in 1912 the president either will not resist or that he will wait until the battle is lost.

In consequence, all these wild populist and socialistic schemes and policies that Mr. Roosevelt has presented on his western tour are regarded as probable issues in the next presidential campaign. Commerce and industry are confronting another reign of terror such as brought on the panic of 1907, which threw 2,000,000 men out of work and cost the country hundreds of millions of dollars. They believe themselves threatened with another period of government by demagoguery and denunciation, all because Mr. Taft has been a proxy.

Mr. Taft is doing nothing to quiet the alarm. Does he want a panic? Is that another of Mr. Taft's policies to which his administration is pledged?

Point Not to Be Forgotten. In the mighty uprising of the people against the oppressions and inequities of the Payne-Aldrich tariff the question of reducing the wasteful expenditures of successive Republican congresses and administrations is almost forgotten. During the seven years of Roosevelt's administration, when expenditures were annually piled up to exorbitant heights, the very word "economy" was taboo both in the White House and in the halls of congress. Yet how important is an issue which the Republican campaign textbook almost ignores is indicated by the public declaration of Senator Aldrich that by the application of good business methods the expenditures of national administration could be reduced by the enormous sum of \$300,000,000 a year, or more than the total net ordinary cost of government but three decades ago. But in the disposition of the public mind to dispose of one issue at a time, and this the relief from intolerable tariff burdens, the necessity of retrenchment in government expenditures is almost lost from view.—Philadelphia Record.

## Too Much Ghost Dance.

Roosevelt's tour was largely a series of Apache dances and songs of defiance against the bosses of the Republican party in New York. His speeches have been more like ululations than rational discourses. "I am for honest politics. I am for clean politics. I am for straight politics," he shouts. "I will crush mobs. I will crush corrupt corporations," he adds. "If they wish a fight I'll give it to them." What means all this? Why should this little man be so hot? Is Vice-President Sherman unclear? Is Chairman Woodruff dishonest? Is Mr. Barnes crooked? What corporation is he going to crush? Where is the mob? Who's hunting a fight? Time was when the angry man was a close associate of the accused trier, and shared the spoils of politics with them. There is no call to do a ghost dance now.—St. Louis Post-Dispatch.

## Is It Worth While?

For seven years the man of words held the presidency. The things that he now promises he then fails to do. To excuse himself or to delude others, he now holds that if he can have scores of new laws, if he can command the courts, if he can reconstruct society, industry and government, he may be able in another seven or eight years to accomplish something.

Is it worth while? In particular, is it worth while when we have before our eyes in New York and in Ohio men who have achieved notable reforms while other men have talked?

## Roosevelt's Words and Deeds.

While I will do my best to get hold of the thief of the opposite party, I will try, if possible, a little harder to get hold of the thief of my own party.—Theodore Roosevelt.

An excellent sentiment! Has Mr. Roosevelt always acted on it? How about the sugar thieves? At any rate, it is a sentiment that should not be exclusive with Mr. Roosevelt, and we know that in this generation it is a long way from being exclusive with him.

## PROTECTION IDEA RUN MAD

Incident Shows How the Policy Frequently Is Carried to Illogical Extremes.

The general principle of protection is beautiful, but it is the practical working of it that commands an admiration too great for adequate expression. As for example:

A St. Louis man desired to obtain a little West Indian chocolate for household use. He wrote to a friend in the island of Trinidad, who sent him four pounds by mail, on which he paid duty at the port of St. Louis.

The chocolate is worth in Trinidad from 15 to 18 cents a pound. The tariff tax is 50 per cent. ad valorem. This should have made the chocolate cost, at the most, 27 cents a pound in St. Louis, exclusive of postage.

But the appraisers valued the chocolate at 50 cents a pound. This made the duty 25 cents. A 50 per cent. duty was by this rational and beautiful process made to amount to more than the value of the article. The cost of the chocolate to the consumer, to be precise, was 38 per cent. more than twice its purchase price in Trinidad, after it had paid 50 per cent. duty—a la mode.

This method is worth dwelling on. How was the price of 50 cents per pound determined? Well, 18 cents original price, plus nine cents duty, plus eight cents postage makes 35 cents. Then there is the profit of the retailer, had there been a retailer. True, there wasn't in this case, but why should the government suffer because of an omission like that?

The aim of a high tariff should not be wholly forgotten in this connection. It is to protect American industries. And the American chocolate industry is of equal importance with the Greenland banana trade.

## HOW "PROTECTED" MEN LIVE

Its Beneficiaries Surely Have Reason to Rejoice That They Exist in Its Shadow.

Two-thirds of the steelworkers receive a wage not greater than \$12 a week; only one-fifth receive more than \$15. Let us see what a wage of \$12 will do in Pittsburgh. Fortunately we are able to draw upon Miss Byington's careful study of the budgets of 90 homestead families. Thirty-two of these had less than \$12 a week. Their average weekly expenditures were \$9.18—or at the rate of \$477.36 a year.

How do the families fare who spend from \$12 to \$15 a week? Miss Byington gives us the items for 16 families in this wage group, with an average total expenditure of \$13.22, or a scant \$700 a year. These families pay about \$10 a month rent, but ten of them live with more than two persons to a room and only five have city water in the house. They pay on the average 24 cents per man per day for food, but four of the sixteen spend less than 22 cents. Clothing they buy at the rate of \$81.64 a year. Fifty cents a week for insurance provides only for burial, should death occur. The only item that looms hopelessly is the margin of \$2.83 for all other expenditures. But the families in this group were not self-indulgent; 20 cents paid the weekly bill for liquor and tobacco, 47 cents went for medical services, 42 cents for furnishings and minor household expenses, leaving only \$1.23 for car fare, papers, recreation, education and miscellaneous expenditures.

It is no wonder that some of these 16 families reported but three cents a week for recreation.—Survey.

## Republican Party False to Duty.

And this is the consummation after years of patient and submissive endurance. The American people were promised relief from the extortions and exactions of monopoly. The party that had promised relief was the party that imposed the burden. It contracted to take off the galling yoke, its candidate for president confirmed and ratified, repeated and reiterated the promise. It was reiterated from every Republican platform. It was heralded and proclaimed through every revolting Republican state of the Mississippi valley and elsewhere. The people credulously confided in the promises and gave the Republican party another lease of power. The Republican party has proved recreant to its trust and false to its duty.

## Some Explanation Needed.

There has been a great change in the attitude of many of the Republican leaders toward the tariff. We hear little, to take one instance, from Senator Lodge about the beauties of the Aldrich-Payne masterpiece. Yet he helped make it and, after it was made, he pronounced it good. When the people began to show their teeth Lodge declared that the ultimate consumer was "a myth." But now Republicans of all complexions are talking about a commission which shall patch up a tariff only a little over a year old, which was supposed to be the sum of all human wisdom. Even those who praise it admit that it will not do as it is.

## The Man Behind the Grin.

As he reads the reports of Colonel Roosevelt's triumphal tour through the west several vivid truths must have been impressed upon the fat intellect of William Howard Taft.

The first one, no doubt, was that the west has not been deceived by the Aldrich-Taft tariff law. The west knows that law is all for trusts and nothing for the people.

The second great truth that is now clear to Mr. Taft is that the country at large has not been won by his corrupt grin.

The famous Taft smile has lost its power to charm. The man behind the grin has been found to be an Aldrich in disguise.

## But Aldrich Is Brazen.

By raising the rubber tariff—indeed, by not removing or greatly reducing it, as his party in effect had promised—Aldrich poured millions into the coffers of the sole customer of his own raw rubber company. A sensitive man, caught robbing the people so wantonly, would resign.—World's Work.

## MAINLY MATTER OF BARTER